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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Daniel Baumgartner

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EXAMINER

PRONE, CHRISTOPHER D

ART UNIT

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3738

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/526,293	Applicant(s) BAUMGARTNER ET AL.	
	Examiner CHRISTOPHER D. PRONE	Art Unit 3738	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 March 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>3/1/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

The abstract of the disclosure is objected to because it contains more than 150 words. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In regards to claim 1 the applicant requires the upper terminal part to have a concave inner surface 7. This surface is not concave because it only curves in one direction. A line can be concave in this manner but for a surface to be concave it must be curved in more than one direction like a contact lens.

In regards to claim 4 is it unclear how the surface 7 could be spherical. The surface is only shown by the figures to have a curved surface. It is further unclear what the applicant means by ellipsoidal and barrel-like. Figures might clarify the requirements, but explanation as to whether the applicant means the outline of the surface resembles these shapes or that the surface is no longer convex and bulges out to resemble these shapes. It is also unclear as to what the applicant means by "point-like rest". Paragraph [0014] attempts to describe the engagement but it is still unclear.

In regards to claim 5 is it unclear what the applicant means by “different”. How are they different? Different could be interpreted to mean distinct or separate allowing the presence of two radii to read on this claim language. It is also unclear as to what the applicant means by “linear rest”. Paragraph [0014] attempts to describe the engagement but it is still unclear.

In regards to claims 9 and 10 it is unclear what the applicant is referring to when describing external surface 11. 11 is not a surface on the implant. Reference number 11 is only present in figure 2 which is an imaginary projected extension of the internal surface 9.

In regards to claim 10 is it unclear how the surface 11 could be conical. The surface is only shown by the figures to have a curved surface. Figures might clarify the requirements, but explanation as to whether the applicant means the outline of the surface resembles this shape or that the surface is no longer convex and bulges out to resemble this shape.

In regards to claim 15 it is unclear what the applicant is calling an external surface. The cone 16 in the figures appears to represent the internal surface 8.

In regards to claim 16 the recitation of + or – 5 and + or – 10 is indefinite. It is unclear what the applicant is intending by this limitation. The applicant is advised to amend the claim to give an actual numerical range.

Claims 9 and 10 recites the limitation "the rotationally symmetrical external surface" in lines 2-3. There is insufficient antecedent basis for this limitation in the claim.

Claim 15 recites the limitation "the conical external surface 16" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-7, 9-11, 13, and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Buettner-Janz et al USPN 4,759,766.

Buettner discloses the same invention being an intervertebral implant shown best in figure 11. The implant comprises upper terminal part 11a comprising a concave inner surface, lower terminal part 11b comprising a concave inner surface, and a joint element 12a that has a sliding engagement with the concave surfaces. The surfaces are smooth and rotationally symmetrical about axes that cross, but are separate from each other.

In regards to claim 13 Buettner further discloses the use of anchoring texture 3 on the exterior surface for better attachment to the implant site.

In regards to claim 15 Buettner further discloses stops extending down from the front and back of the upper terminal element that extend parallel to the central axis.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buettner-Janz et al USPN 4,759,766.

Buettner discloses the invention substantially as claimed being described supra. However, Buettner does not disclose the specific angles of rotation and dimensions in millimeters of the implant. It would have been obvious to one having ordinary skill in the art at the time that the implant of Buettner would rotate along the second axis that is at an angle between 60 and 88 degrees in order to mimic the natural movement of the spine. It also would have been obvious to one having ordinary skill in the art at the time that the implant of Buettner would have a thickness that would offset the rotational axis between 0 and 18 millimeters to mimic the natural movement of the spine.

Claim 14 is rejected under 35 U.S.C. 103 as being unpatentable over Buettner-Janz et al USPN 4,759,766 in view of Navarro et al 5,534,030.

Buettner discloses the invention substantially as claimed being described supra.

However, Buettner does not disclose that the external surface of the implant comprises a titanium grid.

Navarro teaches the use of a spinal implant comprising a titanium grid coating 66-74 in the same field of endeavor for the purpose of enhancing ingrowth.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the titanium coating taught by Navarro with the implant of Buettner in order to enhance the bone ingrowth capabilities of the device.

Claim 17 is rejected under 35 U.S.C. 103 as being unpatentable over Buettner-Janz et al USPN 4,759,766 in view of Jones et al 5,879,387.

Buettner discloses the invention substantially as claimed being described supra. However, Buettner does not disclose that the terminal elements comprise three parts..

Jones teaches the use of a and a method for making a terminal component of an implant comprising a cover plate 7, a joint pan 4, and an elastic spacer 5 in the same field of endeavor for the purpose of reducing wear during normal use.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the multiple layers taught by Jones with the implant of Buettner in order to reducing wear during normal use of the device.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTOPHER D. PRONE whose telephone number is

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(571)272-6085. The examiner can normally be reached on Monday through Fri 8:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Corrine McDermott can be reached on (571) 272-4754. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Christopher D Prone
Examiner
Art Unit 3738

/Christopher D Prone/
/Thomas J Sweet/
Primary Examiner, Art Unit 3774